

Release notes for ENDF/B Development n-090_Th_227
evaluation



April 26, 2017

- fudge-4.0 Warnings:

1. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.

WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.82%

2. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [nubar]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

3. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 3 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

4. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 3 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

5. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 (n + Th227): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

6. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 (n + Th227): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

7. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 8 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission]): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

8. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 8 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission]): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

9. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 10 ($n + (Th227_e1 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (2.518691e-09) is too small

10. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 11 ($n + (Th227_e2 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (5.306786e-10) is too small

11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 12 ($n + (Th227_e3 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (6.436495e-10) is too small

12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 13 ($n + (Th227_e4 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (4.128451e-09) is too small

13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 14 ($n + (Th227_e5 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (4.112836e-10) is too small

14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 15 ($n + (Th227_e6 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (3.786844e-10) is too small

15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 16 ($n + (Th227_e7 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (1.637364e-09) is too small

16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 17 ($n + (Th227_e8 \rightarrow Th227 + \gamma)$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (1.182525e-09) is too small

17. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 18 (n + (Th227_e9 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.
- ```
WARNING: Ratio of smallest/largest eigenvalue (1.709995e-09) is too small
```
18. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 19 (n + (Th227\_e10 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.*
- ```
WARNING: Ratio of smallest/largest eigenvalue (4.010400e-10) is too small
```
19. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 20 (n + (Th227_e11 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.
- ```
WARNING: Ratio of smallest/largest eigenvalue (2.569964e-09) is too small
```
20. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 21 (n + (Th227\_e12 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.*
- ```
WARNING: Ratio of smallest/largest eigenvalue (6.501610e-09) is too small
```
21. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 22 (n + (Th227_e13 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.
- ```
WARNING: Ratio of smallest/largest eigenvalue (4.044198e-09) is too small
```
22. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 23 (n + (Th227\_e14 -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.*
- ```
WARNING: Ratio of smallest/largest eigenvalue (1.551726e-09) is too small
```
23. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 24 (n + (Th227_c -> Th227 + gamma)): / Form 'eval': (Error # 0): Condition num.
- ```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```
24. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.  
*Section 25 (Th228 + gamma): / Form 'eval': / Component 0 (Error # 0): Condition num.*
- ```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

25. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 25 (Th228 + gamma): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

26. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 26 (n + Th227 [angular distribution]): / Form 'eval': (Error # 1): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

27. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 27 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

28. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 28 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

29. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 29 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

30. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 30 (n[multiplicity:'energyDependent', emissionMode:'prompt'] + n[emissionMode:'6 delayed'] + gamma [total fission] [spectrum]): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

- **fudge-4.0 Errors:**

1. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (120000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

2. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Distribution: / uncorrelated - angular - isotropic: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (120000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
 WARNING: Domain doesn't match the cross section domain: (127866.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
 WARNING: Domain doesn't match the cross section domain: (127866.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
 WARNING: Domain doesn't match the cross section domain: (140000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
 ... plus 27 more instances of this message
3. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_b / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (127866.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
4. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_c / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (127866.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
5. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_d / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (140000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
6. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_e / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (140000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
7. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_f / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
8. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_g / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
9. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_h / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
10. Energy range of data set does not match cross section range
 $reaction\ label\ 15: n + (Th227_c \rightarrow Th227 + gamma) / Product: Th227_c / Decay\ product: gamma_i / Multiplicity: (Error \# 0): Domain\ mismatch\ (a)$

WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

- WARNING: Domain doesn't match the cross section domain: (300000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
11. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_j / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (200909.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
12. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_k / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
13. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_l / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
14. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_m / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (184526.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
15. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_n / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
16. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_o / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (200909.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
17. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_p / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (200000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
18. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_q / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (300000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)
19. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_r / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (200909.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

20. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_s / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (200909.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

21. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_t / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (229495.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

22. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_u / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (229495.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

23. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_v / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

24. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_w / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

25. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_x / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (300000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

26. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_y / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

27. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_z / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

28. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_aa / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (300000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

29. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_ab / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

30. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_ac / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

31. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_ad / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

32. Energy range of data set does not match cross section range
reaction label 15: n + (Th227_c -> Th227 + gamma) / Product: Th227_c / Decay product: gamma_ae / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (400000.0 -> 20000000.0) vs (110980.0 -> 20000000.0)

33. Calculated and tabulated Q values disagree.
reaction label 16: n[multiplicity:'2'] + Th226 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -5863517.241424561 eV vs -5.4622e6 eV!

34. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

35. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

36. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_b / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

37. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

38. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_c / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

39. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

40. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_d / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

41. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

42. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_e / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

43. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

44. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_f / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

45. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

46. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_g / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

47. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

48. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_h / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

49. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

50. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_i / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

51. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_i / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

52. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_j / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

53. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_j / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

54. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_k / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

55. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_k / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

56. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_l / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

57. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_l / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

58. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_m / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

59. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_m / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6000000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

60. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_n / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

61. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_n / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

62. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_o / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

63. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_o / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

64. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_p / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)

65. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_p / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)
66. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_q / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)
67. Energy range of data set does not match cross section range
reaction label 16: n[multiplicity:'2'] + Th226 + gamma / Product: gamma_q / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (6500000.0 -> 20000000.0) vs (5486470.0 -> 20000000.0)
68. Calculated and tabulated Q values disagree.
reaction label 17: n[multiplicity:'3'] + Th225 + gamma (Error # 0): Q mismatch
- WARNING: Calculated and tabulated Q-values disagree: -13048007.62643433 eV vs -1.26467e7 eV!
69. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (13000000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)
70. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (13000000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)
71. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_b / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)
72. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)
73. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_c / Multiplicity: (Error # 0): Domain mismatch (a)
- WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)

74. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)

75. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_d / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)

76. Energy range of data set does not match cross section range
reaction label 17: n[multiplicity:'3'] + Th225 + gamma / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (13500000.0 -> 20000000.0) vs (12702900.0 -> 20000000.0)

77. Calculated and tabulated Q values disagree.
reaction label 18: n[multiplicity:'4'] + Th224 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -18805376.47497559 eV vs -1.84041e7 eV!

78. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_a / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

79. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_a / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

80. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_b / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

81. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_b / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19000000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

82. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_c / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

83. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_c / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

84. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_d / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

85. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_d / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

86. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_e / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

87. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_e / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

88. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_f / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

89. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_f / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

90. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_g / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

91. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_g / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

92. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_h / Multiplicity: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

93. Energy range of data set does not match cross section range
reaction label 18: n[multiplicity:'4'] + Th224 + gamma / Product: gamma_h / Distribution: / uncorrelated - angular - isotropic: (Error # 0): Domain mismatch (a)

WARNING: Domain doesn't match the cross section domain: (19500000.0 -> 20000000.0) vs (18485800.0 -> 20000000.0)

94. Calculated and tabulated Q values disagree.
reaction label 20: Th228 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 6703989.43850708 eV vs 7.1053e6 eV!

95. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 17: n + (Th227_c -> Th227 + gamma) total gamma multiplicity (Error # 0): summedMultiplicityMismatch

WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 39.11%

96. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 18: n[multiplicity:'2'] + Th226 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch

WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 99.97%

97. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 19: n[multiplicity:'3'] + Th225 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch

WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 78.01%

98. Multiplicity does not match sum of linked product multiplicities!
multiplicitySum label 20: n[multiplicity:'4'] + Th224 + gamma total gamma multiplicity (Error # 0): summedMultiplicityMismatch

WARNING: Multiplicity does not match sum of linked product multiplicities! Max diff: 50.67%

99. Calculated and tabulated Q values disagree.
fissionComponent label 0: /reactionSuite/fissionComponents/fissionComponent[@label='0'] (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 212414118891.384 eV vs 1.82286e8 eV!

100. Calculated and tabulated Q values disagree.
fissionComponent label 1: /reactionSuite/fissionComponents/fissionComponent[@label='1'] (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 212414118891.384 eV vs 1.82286e8 eV!

101. Calculated and tabulated Q values disagree.
fissionComponent label 2: /reactionSuite/fissionComponents/fissionComponent[@label='2']
(Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 212414118891.384 eV vs 1.82286e8 eV!

102. Calculated and tabulated Q values disagree.
fissionComponent label 3: /reactionSuite/fissionComponents/fissionComponent[@label='3']
(Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 212414118891.384 eV vs 1.82286e8 eV!

103. A covariance matrix was not positive semi-definite, so it has negative eigenvalues.
Section 26 (n + Th227 [angular distribution]): / Form 'eval': / LegendreLValue L=1 vs 1 (Error # 0): Bad evs

WARNING: 10 negative eigenvalues! Worst case = -5.460590e-05

- njoy2012 Warnings:

1. Evaluation has no resonance parameters given
unresr...calculation of unresolved resonance cross sections (0): No RR

---message from unresr---mat 9025 has no resonance parameters
copy as is to nout

2. In some evaluations, the partial fission reactions MT=19, 20, 21, and 38 are given in File 3, but no corresponding distributions are given. In these cases, it is assumed that MT=18 should be used for the fission neutron distributions.
heatr...prompt kerma (0): HEATR/hinit (3)

---message from hinit---mt19 has no spectrum
mt18 spectrum will be used.

3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

---message from hinit---mf6, mt 16 does not give recoil za= 90226
one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

---message from hinit---mf6, mt 17 does not give recoil za= 90225
one-particle recoil approx. used.

5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

---message from hinit---mf6, mt 37 does not give recoil za= 90224
one-particle recoil approx. used.

6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

---message from hinit---mf6, mt 51 does not give recoil za= 90227
one-particle recoil approx. used.

7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

---message from hinit---mf6, mt 52 does not give recoil za= 90227
one-particle recoil approx. used.

8. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

---message from hinit---mf6, mt 53 does not give recoil za= 90227
one-particle recoil approx. used.

9. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (7): HEATR/hinit (4)

---message from hinit---mf6, mt 54 does not give recoil za= 90227
one-particle recoil approx. used.

10. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (8): HEATR/hinit (4)

---message from hinit---mf6, mt 55 does not give recoil za= 90227
one-particle recoil approx. used.

11. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (9): HEATR/hinit (4)

---message from hinit---mf6, mt 56 does not give recoil za= 90227
one-particle recoil approx. used.

12. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (10): HEATR/hinit (4)

---message from hinit---mf6, mt 57 does not give recoil za= 90227
one-particle recoil approx. used.

13. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (11): HEATR/hinit (4)

---message from hinit---mf6, mt 58 does not give recoil za= 90227
one-particle recoil approx. used.

14. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (12): HEATR/hinit (4)

---message from hinit---mf6, mt 59 does not give recoil za= 90227
one-particle recoil approx. used.

15. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (13): HEATR/hinit (4)

---message from hinit---mf6, mt 60 does not give recoil za= 90227
one-particle recoil approx. used.

16. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (14): HEATR/hinit (4)

```
---message from hinit---mf6, mt 61 does not give recoil za= 90227
one-particle recoil approx. used.
```

17. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (15): HEATR/hinit (4)

```
---message from hinit---mf6, mt 62 does not give recoil za= 90227
one-particle recoil approx. used.
```

18. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (16): HEATR/hinit (4)

```
---message from hinit---mf6, mt 63 does not give recoil za= 90227
one-particle recoil approx. used.
```

19. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (17): HEATR/hinit (4)

```
---message from hinit---mf6, mt 64 does not give recoil za= 90227
one-particle recoil approx. used.
```

20. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (18): HEATR/hinit (4)

```
---message from hinit---mf6, mt 91 does not give recoil za= 90227
one-particle recoil approx. used.
```

21. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (19): HEATR/hinit (4)

```
---message from hinit---mf6, mt102 does not give recoil za= 90228
photon momentum recoil used.
```

22. There is a problem with the fission energy release.
heatr...prompt kerma (24): HEATR/nheat (3)

```
---message from nheat---changed q from 1.822860E+08 to 1.722490E+08
for mt 18
```

23. Evaluation has no resonance parameters given
purr...probabalistic unresolved calculation (0): No RR

```
---message from purr---mat 9025 has no resonance parameters
copy as is to nout
```

24. The number of coefficients is too big.
covr...process covariance data (1): COVR/matshd (3)

```
---message from matshd--- 80 coefficients > 2
reset and continue
```